SEQUENCE LISTING

(1) GENERAL INFORMATION

(i) APPLICANT: SEED, BRIAN
                HAAS, JURGEN

(ii) TITLE OF THE INVENTION: HIGH LEVEL EXPRESSION OF
        PROTEINS

(iii) NUMBER OF SEQUENCES: 110

(iv) CORRESPONDENCE ADDRESS:
  (A) ADDRESSEE: Clark & Elbing LLP
  (B) STREET: 176 Federal Street
  (C) CITY: Boston
  (D) STATE: MA
  (E) COUNTRY: USA
  (F) ZIP: 02110

(v) COMPUTER READABLE FORM:
  (A) MEDIUM TYPE: Diskette
  (B) COMPUTER: IBM Compatible
  (C) OPERATING SYSTEM: DOS
  (D) SOFTWARE: FastSEQ for Windows Version 2.0

(vi) CURRENT APPLICATION DATA:
  (A) APPLICATION NUMBER: 08/717,294
  (B) FILING DATE: 20-SEP-1996
  (C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:
  (A) APPLICATION NUMBER:
  (B) FILING DATE:

(viii) ATTORNEY/AGENT INFORMATION:
  (A) NAME: Elbing, Karen L
  (B) REGISTRATION NUMBER: 35,238
  (C) REFERENCE/DOCKET NUMBER: 00786/345001

(ix) TELECOMMUNICATION INFORMATION:
  (A) TELEPHONE: 617-428-0200
  (B) TELEFAX: 617-428-7045
  (C) TELEX:

  (2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

CGCGGGCTAG CCACCGAGAA GCTG   24

        (2) INFORMATION FOR SEQ ID NO:2:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 195 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

ACCGAGAAGC TGTGGGTGAC CGTGTACTAC GGCGTGCCCG TGTGGAAGAG AGGCCACCAC   60
CACCCTGTTC TGCGCCAGCG ACGCCAAGGC GTACGACACC GAGGTGCACA ACGTGTGGGC   120
CACCCAGGCG TGCGTGCCCA CCGACCCCAA CCCCCAGGAG GTGGAGCTCG TGAACGTGAC   180
CGAGAACTTC AACAT   195

        (2) INFORMATION FOR SEQ ID NO:3:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 34 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

CCACCATGTT GTTCTTCCAC ATGTTGAAGT TCTC   34

        (2) INFORMATION FOR SEQ ID NO:4:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 33 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

GACCGAGAAC TTCAACATGT GGAAGAACAA CAT   33

      (2) INFORMATION FOR SEQ ID NO:5:

    (i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 192 base pairs
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: single
     (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

TGGAAGAACA ACATGGTGGA GCAGATGCAT GAGGACATCA TCAGCCTGTG GGACCAGAGC   60
CTGAAGCCCT GCGTGAAGCT GACCCCCTGT GCGTGACCTG AACTGCACCG ACCTGAGGAA   120
CACCACCAAC ACCAACACAG CACCGCCAAC AACAACAGCA ACAGCGAGGG CACCATCAAG   180
GGCGGCGAGA TG   192

      (2) INFORMATION FOR SEQ ID NO:6:

    (i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 33 base pairs
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: single
     (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

GTTGAAGCTG CAGTTCTTCA TCTCGCCGCC CTT   33

      (2) INFORMATION FOR SEQ ID NO:7:

    (i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 31 base pairs
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: single
     (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

GAAGAACTGC AGCTTCAACA TCACCACCAG C   31

      (2) INFORMATION FOR SEQ ID NO:8:

```
      (i) SEQUENCE CHARACTERISTICS:
         (A) LENGTH: 195 base pairs
         (B) TYPE: nucleic acid
         (C) STRANDEDNESS: single
         (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

AACATCACCA CCAGCATCCG CGACAAGATG CAGAAGGAGT ACGCCCTGCT GTACAAGCTG      60
GATATCGTGA GCATCGACAA CGACAGCACC AGCTACCGCC TGATCTCCTG CAACACCAGC     120
GTGATCACCC AGGCCTGCCC CAAGATCAGC TTCGAGCCCA TCCCCATCCA CTACTGCGCC     180
CCCGCCGGCT TCGCC                                                      195

          (2) INFORMATION FOR SEQ ID NO:9:

      (i) SEQUENCE CHARACTERISTICS:
         (A) LENGTH: 30 base pairs
         (B) TYPE: nucleic acid
         (C) STRANDEDNESS: single
         (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

GAACTTCTTG TCGGCGGCGA AGCCGGCGGG                                       30

          (2) INFORMATION FOR SEQ ID NO:10:

      (i) SEQUENCE CHARACTERISTICS:
         (A) LENGTH: 47 base pairs
         (B) TYPE: nucleic acid
         (C) STRANDEDNESS: single
         (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

GCGCCCCCGC CGGCTTCGCC ATCCTGAAGT GCAACGACAA GAAGTTC                    47

          (2) INFORMATION FOR SEQ ID NO:11:

      (i) SEQUENCE CHARACTERISTICS:
         (A) LENGTH: 198 base pairs
         (B) TYPE: nucleic acid
         (C) STRANDEDNESS: single
         (D) TOPOLOGY: linear
```

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

```
GCCGACAAGA AGTTCAGCGG CAAGGGCAGC TGCAAGAACG TGAGCACCGT GCAGTGCACC        60
CACGGCATCC GGCCGGTGGT GAGCACCCAG CTCCTGCTGA ACGGCAGCCT GGCCGAGGAG       120
GAGGTGGTGA TCCGCAGCGA GAACTTCACC GACAACGCCA AGACCATCAT CGTGCACCTG       180
AATGAGAGCG TGCAGATC                                                    198
```

        (2) INFORMATION FOR SEQ ID NO:12:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 34 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: Other

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

```
AGTTGGGACG CGTGCAGTTG ATCTGCACGC TCTC                                   34
```

        (2) INFORMATION FOR SEQ ID NO:13:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 30 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: Other

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

```
GAGAGCGTGC AGATCAACTG CACGCGTCCC                                        30
```

        (2) INFORMATION FOR SEQ ID NO:14:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 120 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: Other

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

```
AACTGCACGC GTCCCAACTA CAACAAGCGC AAGCGCATCC ACATCGGCCC CGGGCGCGCC        60
TTCTACACCA CCAAGAACAT CATCGGCACC ATCCTCCAGG CCCACTGCAA CATCTCTAGA       120
```

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(2) INFORMATION FOR SEQ ID NO:15:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 30 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: Other

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

GTCGTTCCAC TTGGCTCTAG AGATGTTGCA   30

         (2) INFORMATION FOR SEQ ID NO:16:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 29 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: Other

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

GCAACATCTC TAGAGCCAAG TGGAACGAC   29

         (2) INFORMATION FOR SEQ ID NO:17:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 131 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: Other

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

GCCAAGTGGA ACGACACCCT GCGCCAGATC GTGAGCAAGC TGAAGGAGCA GTTCAAGAAC   60
AAGACCATCG TGTTCACCAG AGCAGCGGCG GCGACCCCGA GATCGTGATG CACAGCTTCA   120
ACTGCGGCGG C   131

         (2) INFORMATION FOR SEQ ID NO:18:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 29 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

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(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

GCAGTAGAAG AATTCGCCGC CGCAGTTGA   29

          (2) INFORMATION FOR SEQ ID NO:19:

     (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 29 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

TCAACTGCGG CGGCGAATTC TTCTACTGC   29

          (2) INFORMATION FOR SEQ ID NO:20:

     (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 195 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

GGCGAATTCT TCTACTGCAA CACCAGCCCC CTGTTCAACA GCACCTGGAA CGGCAACAAC   60
ACCTGGAACA ACACCACCGG CAGCAACAAC AATATTACCC TCCAGTGCAA GATCAAGCAG   120
ATCATCAACA TGTGGCAGGA GGTGGGCAAG GCCATGTACG CCCCCCCCAT CGAGGGCCAG   180
ATCCGGTGCA GCAGC   195

          (2) INFORMATION FOR SEQ ID NO:21:

     (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 40 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

GCAGACCGGT GATGTTGCTG CTGCACCGGA TCTGGCCCTC   40

(2) INFORMATION FOR SEQ ID NO:22:

(i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 40 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

```
CGAGGGCCAG ATCCGGTGCA GCAGCAACAT CACCGGTCTG                         40
```

(2) INFORMATION FOR SEQ ID NO:23:

(i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 198 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

```
AACATCACCG GTCTGCTGCT GACCCGCGAC GGCGGCAAGG ACACCGACAC CAACGACACC    60
GAAATCTTCC GCCCCGGCGG CGGCGACATG CGCGACAACT GGAGATCTGA GCTGTACAAG   120
TACAAGGTGG TGACGATCGA GCCCCTGGGC GTGGCCCCCA CCAAGGCCAA GCGCCGCGTG   180
GTGCAGCGCG AGAAGCGC                                                 198
```

(2) INFORMATION FOR SEQ ID NO:24:

(i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 38 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

```
CGCGGGCGGC CGCTTTAGCG CTTCTCGCGC TGCACCAC                           38
```

(2) INFORMATION FOR SEQ ID NO:25:

(i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 39 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single

```
          (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

CGCGGGGGAT CCAAGCTTAC CATGATTCCA GTAATAAGT                          39


          (2) INFORMATION FOR SEQ ID NO:26:

     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 165 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

ATGAATCCAG TAATAAGTAT AACATTATTA TTAAGTGTAT TACAAATGAG TAGAGGACAA     60
AGAGTAATAA GTTTAACAGC ATCTTTAGTA AATCAAAATT TGAGATTAGA TTGTAGACAT    120
GAAAATAATA CAAATTTGCC AATACAACAT GAATTTTCAT TAACG                    165


          (2) INFORMATION FOR SEQ ID NO:27:

     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 36 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

CGCGGGGAAT TCACGCGTTA ATGAAAATTC ATGTTG                             36


          (2) INFORMATION FOR SEQ ID NO:28:

     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 30 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

CGCGGATCCA CGCGTGAAAA AAAAAAACAT                                    30
```

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(2) INFORMATION FOR SEQ ID NO:29:

   (i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 150 base pairs
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: single
     (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: Other

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

```
CGTGAAAAAA AAAAACATGT ATTAAGTGGA ACATTAGGAG TACCAGAACA TACATATAGA      60
AGTAGAGTAA ATTTGTTTAG TGATAGATTC ATAAAAGTAT TAACATTAGC AAATTTTACA     120
ACAAAAGATG AAGGAGATTA TATGTGTGAG                                      150
```

     (2) INFORMATION FOR SEQ ID NO:30:

   (i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 30 base pairs
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: single
     (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: Other

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

```
CGCGAATTCG AGCTCACACA TATAATCTCC                                       30
```

     (2) INFORMATION FOR SEQ ID NO:31:

   (i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 30 base pairs
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: single
     (D) TOPOLOGY: linear

   (ii) MOLECULE TYPE: Other

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

```
CGCGGATCCG AGCTCAGAGT AAGTGGACAA                                       30
```

     (2) INFORMATION FOR SEQ ID NO:32:

   (i) SEQUENCE CHARACTERISTICS:
     (A) LENGTH: 170 base pairs
     (B) TYPE: nucleic acid
     (C) STRANDEDNESS: single
     (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

```
CTCAGAGTAA GTGGACAAAA TCCAACAAGT AGTAATAAAA CAATAAATGT AATAAGAGAT      60
AAATTAGTAA AATGTGAGGA ATAAGTTTAT TAGTACAAAA TACAAGTTGG TTATTATTAT     120
TATTATTAAG TTTAAGTTTT TTACAAGCAA CAGATTTTAT AAGTTTATGA                170
```

(2) INFORMATION FOR SEQ ID NO:33:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 36 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:

```
CGCGAATTCG CGGCCGCTTC ATAAACTTAT AAAATC                                36
```

(2) INFORMATION FOR SEQ ID NO:34:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 1632 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: double
    (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:

```
CTCGAGATCC ATTGTGCTCT AAAGGAGATA CCCGGCCAGA CACCCTCACC TGCGGTGCCC      60
AGCTGCCCAG GCTGAGGCAA GAGAAGGCCA GAAACCATGC CCATGGGGTC TCTGCAACCG     120
CTGGCCACCT TGTACCTGCT GGGGATGCTG GTCGCTTCCG TGCTAGCCAC CGAGAAGCTG     180
TGGGTGACCG TGTACTACGG CGTGCCCGTG TGGAAGGAGG CCACCACCAC CCTGTTCTGC     240
GCCAGCGACG CCAAGGCGTA CGACACCGAG GTGCACAACG TGTGGGCCAC CCAGGCGTGC     300
GTGCCCACCG ACCCCAACCC CCAGGAGGTG GAGCTCGTGA ACGTGACCGA GAACTTCAAC     360
ATGTGGAAGA ACAACATGGT GGAGCAGATG CATGAGGACA TCATCAGCCT GTGGGACCAG     420
AGCCTGAAGC CCTGCGTGAA GCTGACCCCC CTGTGCGTGA CCCTGAACTG CACCGACCTG     480
AGGAACACCA CCAACACCAA CAACAGCACC GCCAACAACA ACAGCAACAG CGAGGGCACC     540
ATCAAGGGCG GCGAGATGAA CAACTGCAGC TTCAACATCA CCACCAGCAT CCGCGACAAG     600
ATGCAGAAGG AGTACGCCCT GCTGTACAAG CTGGATATCG TGAGCATCGA CAACGACAGC     660
ACCAGCTACC GCCTGATCTC CTGCAACACC AGCGTGATCA CCCAGGCCTG GCCCAAGATC     720
AGCTTCGAGC CCATCCCCAT CCACTACTGC GCCCCCGCCG GCTTCGCCAT CCTGAAGTGC     780
AACGACAAGA AGTTCAGCGG CAAGGGCAGC TGCAAGAACG TGAGCACCGT GCAGTGCACC     840
CACGGCATCC GGCCGGTGGT GAGCACCCAG CTCCTGCTGA ACGGCAGCCT GGCCGAGGAG     900
GAGGTGGTGA TCCGCAGCGA GAACTTCACC GACAACGCCA AGACCATCAT CGTGCACCTG     960
AATGAGAGCG TGCAGATCAA CTGCACGCGT CCCAACTACA ACAAGCGCAA GCGCATCCAC    1020
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ATCGGCCCCG GGCGCGCCTT CTACACCACC AAGAACATCA TCGGCACCAT CCGCCAGGCC   1080
CACTGCAACA TCTCTAGAGC CAAGTGGAAC GACACCCTGC GCCAGATCGT GAGCAAGCTG   1140
AAGGAGCAGT TCAAGAACAA GACCATCGTG TTCAACCAGA GCAGCGGCGG CGACCCCGAG   1200
ATCGTGATGC ACAGCTTCAA CTGCGGCGGC GAATTCTTCT ACTGCAACAC CAGCCCCCTG   1260
TTCAACAGCA CCTGGAACGG CAACAACACC TGGAACAACA CCACCGGCAG CAACAACAAT   1320
ATTACCCTCC AGTGCAAGAT CAAGCAGATC ATCAACATGT GGCAGGAGGT GGGCAAGGCC   1380
ATGTACGCCC CCCCCATCGA GGGCCAGATC CGGTGCAGCA GCAACATCAC CGGTCTGCTG   1440
CTGACCCGCG ACGGCGGCAA GGACACCGAC ACCAACGACA CCGAAATCTT CCGCCCCGGC   1500
GGCGGCGACA TGCGCGACAA CTGGAGATCT GAGCTGTACA AGTACAAGGT GGTGACGATC   1560
GAGCCCCTGG GCGTGGCCCC CACCAAGGCC AAGCGCCGCG TGGTGCAGCG CGAGAAGCGC   1620
TAAAGCGGCC GC   1632

          (2) INFORMATION FOR SEQ ID NO:35:

        (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 2481 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: double
          (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: cDNA

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:

ACCGAGAAGC TGTGGGTGAC CGTGTACTAC GGCGTGCCCG TGTGGAAGGA GGCCACCACC   60
ACCCTGTTCT GCGCCAGCGA CGCCAAGGCG TACGACACCG AGGTGCACAA CGTGTGGGCC   120
ACCCAGGCGT GCGTGCCCAC CGACCCCAAC CCCCAGGAGG TGGAGCTCGT GAACGTGACC   180
GAGAACTTCA ACATGTGGAA GAACAACATG CTGGAGCAGA TGCATGAGGA CATCATCAGC   240
CTGTGGGACC AGAGCCTGAA GCCCTGCGTG AAGCTGACCC CCCTGTGCGT GACCCTGAAC   300
TGCACCGACC TGAGGAACAC CACCAACACC AACAACAGCA CCGCCAACAA CAACAGCAAC   360
AGCGAGGGCA CCATCAAGGG CGGCGAGATG AAGAACTGCA GCTTCAACAT CACCACCAGC   420
ATCCGCGACA AGATGCAGAA GGAGTACGCC CTGCTGTACA AGCTGGATAT CGTGAGCATC   480
CACAACGACA GCACCAGCTA CCGCCTGATC TCCTGCAACA CCAGCGTGAT CACCCAGGCC   540
TGCCCCAAGA TCAGCTTCGA GCCCATCCCC ATCCACTACT GCGCCCCCGC CGGCTTCGCC   600
ATCCTGAAGT GCAACGACAA GAAGTTCAGC GGCAAGGGCA GCTGCAAGAA CGTGACCACC   660
GTGCAGTGCA CCCACGGCAT CCGGCCGGTG GTGAGCACCC AGCTCCTGCT GAACGGCAGC   720
CTGGCCGAGG AGGAGGTGGT GATCCGCAGC GAGAACTTCA CCGACAACGC CAAGACCATC   780
ATCGTGCACC TGAATGAGAG CGTGCAGATC AACTGCACGC GTCCCAACTA CAACAAGCGC   840
AAGCGCATCC ACATCGGCCC CGGGCGCGCC TTCTACACCA CCAAGAACAT CATCGGCACC   900
ATCCGCCAGG CCCACTGCAA CATCTCTAGA GCCAAGTGGA CGACACCCT GCGCCAGATC   960
GTGAGCAAGC TGAAGGAGCA GTTCAAGAAC AAGACCATCG TGTTCAACCA GAGCAGCGGC   1020
GGCGACCCCG AGATCGTGAT GCACAGCTTC AACTGCGGCG GCGAATTCTT CTACTGCAAC   1080
ACCAGCCCCC TGTTCAACAG CACCTGGAAC GGCAACAACA CCTGGAACAA CACCACCGGC   1140
AGCAACAACA ATATTACCCT CCAGTGCAAG ATCAAGCAGA TCATCAACAT GTGGCAGGAG   1200
GTGGGCAAGG CCATGTACGC CCCCCCCATC GAGGGCCAGA TCCGGTGCAG CAGCAACATC   1260
ACCGGTCTGC TGCTGACCCG CGACGGCGGC AAGGACACCG ACACCAACGA CACCGAAATC   1320
TTCCGCCCCG GCGGCGGCGA CATGCGCGAC AACTGGAGAT CTGAGCTGTA CAAGTACAAG   1380
GTGGTGACGA TCGAGCCCCT GGGCGTGGCC CCCACCAAGG CCAAGCGCCG CGTGGTGCAG   1440
CGCGAGAAGC GGGCCGCCAT CGGCGCCCTG TTCCTGGGCT TCCTGGGGGC GGCGGGCAGC   1500
ACCATGGGGG CCGCCAGCGT GACCCTGACC GTGCAGGCCC GCCTGCTCCT GAGCGGCATC   1560
GTGCAGCAGC AGAACAACCT CCTCCGCGCC ATCGAGGCCC AGCAGCATAT GCTCCAGCTC   1620

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ACCGTGTGGG GCATCAAGCA GCTCCAGGCC CGCGTGCTGG CCGTGGAGCG CTACCTGAAG      1680
GACCAGCAGC TCCTGGGCTT CTGGGGCTGC TCCGGCAAGC TGATCTGCAC CACCACGGTA      1740
CCCTGGAACG CCTCCTGGAG CAACAAGAGC CTGGACGACA TCTGGAACAA CATGACCTGG      1800
ATGCAGTGGG AGCGCGAGAT CGATAACTAC ACCAGCCTGA TCTACAGCCT GCTGGAGAAG      1860
AGCCAGACCC AGCAGGAGAA GAACGAGCAG GAGCTGCTGG AGCTGGACAA CTGGGCGAGC      1920
CTGTGGAACT GGTTCGACAT CACCAACTGG CTGTGGTACA TCAAAATCTT CATCATGATT      1980
GTGGGCGGCC TGGTGGGCCT CCGCATCGTG TTCGCCGTGC TGAGCATCGT GAACCGCGTG      2040
CGCCAGGGCT ACAGCCCCCT GAGCCTCCAG ACCCGGCCCC CCGTGCCGCG CGGGCCCGAC      2100
CGCCCCGAGG GCATCGAGGA GGAGGGCGGC GAGCGCGACC GCGACACCAG CGGCAGGCTC      2160
GTGCACGGCT TCCTGGCGAT CATCTGGGTC GACCTCCGCA GCCTGTTCCT GTTCAGCTAC      2220
CACCACCGCG ACCTGCTGCT GATCGCCGCC CGCATCGTGG AACTCCTAGG CCGCCGCGGC      2280
TGGGAGGTGC TGAAGTACTG GTGGAACCTC CTCCAGTATT GGAGCCAGGA GCTGAAGTCC      2340
AGCGCCGTGA GCCTGCTGAA CGCCACCGCC ATCGCCGTGG CCGAGGGCAC CGACCGCGTG      2400
ATCGAGGTGC TCCAGAGGGC CGGGAGGGCG ATCCTGCACA TCCCCACCCG CATCCGCCAG      2460
GGGCTCGAGA GGGCGCTGCT G                                               2481
```

        (2) INFORMATION FOR SEQ ID NO:36:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 486 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: double
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: cDNA

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:36:

```
ATGAATCCAG TAATAAGTAT AACATTATTA TTAAGTGTAT TACAAATGAG TAGAGGACAA       60
AGAGTAATAA GTTTAACAGC ATGTTTAGTA AATCAAAATT TGAGATTAGA TTGTAGACAT      120
GAAAATAATA CACCTTTGCC AATACAACAT GAATTTTCAT TAACGCGTGA AAAAAAAAAA      180
CATGTATTAA GTGGAACATT AGGAGTACCA GAACATACAT ATAGAAGTAG AGTAAATTTG      240
TTTAGTGATA GATTCATAAA AGTATTAACA TTAGCAAATT TTACAACAAA AGATGAAGGA      300
GATTATATGT GTGAGCTCAG AGTAAGTGGA CAAAATCCAA CAAGTAGTAA TAAAACAATA      360
AATGTAATAA GAGATAAATT AGTAAAATGT GGAGGAATAA GTTTATTAGT ACAAAATACA      420
AGTTGGTTAT TATTATTATT ATTAAGTTTA AGTTTTTTAC AAGCAACAGA TTTTATAAGT      480
TTATGA                                                               486
```

        (2) INFORMATION FOR SEQ ID NO:37:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 485 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: double
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: cDNA

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:37:

```
ATGAACCCAG TCATCAGCAT CACTCTCCTG CTTTCAGTCT TGCAGATGTC CCGAGGACAG       60
```

```
AGGGTGATCA GCCTGACAGC CTGCCTGGTG AACAGAACCT TCGACTGGAC TGCCGTCATG    120
AGAATAACAC CAACTTGCCC ATCCAGCATG AGTTCAGCCT GACCCGAGAG AAGAAGAAGC    180
ACGTGCTGTC AGGCACCCTG GGGGTTCCCG AGCACACTTA CCGCTCCCGC GTCAACCTTT    240
TCAGTGACCG CTTTATCAAG GTCCTTACTC TAGCCAACTT GACCACCAAG GATGAGGGCG    300
ACTACATGTG TGAACTTCGA GTCTCGGGCC AGAATCCCAC AAGCTCCAAT AAAACTATCA    360
ATGTGATCAG AGACAAGCTG GTCAAGTGTG GTGGCATAAG CCTGCTGGTT CAAAACACTT    420
CCTGGCTGCT GCTGCTCCTG CTTTCCCTCT CCTTCCTCCA AGCCACGGAC TTCATTTCTC    480
TGTGA                                                               485
```

        (2) INFORMATION FOR SEQ ID NO:38:

     (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 33 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:38:

```
CGCGGGGCTA GCGCAAAGAG TAATAAGTTT AAC                                  33
```

        (2) INFORMATION FOR SEQ ID NO:39:

     (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 28 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:39:

```
CGCGGATCCC TTGTATTTTG TACTAATA                                        28
```

        (2) INFORMATION FOR SEQ ID NO:40:

     (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 762 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:40:

```
GAATTCACGC GTAAGCTTGC CGCCACCATG GTGAGCAAGG GCGAGGAGCT GTTCACCGGG     60
GTGGTGCCCA TCCTGGTCGA GCTGGACGGC GACGTGAACG GCCACAAGTT CAGCGTGTCC    120
```

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```
GGCGAGGGCG AGGGCGATGC CACCTACGGC AAGCTGACCC TGAAGTTCAT CTGCACCACC      180
GGCAAGCTGC CCGTGCCCTG GCCCACCCTC GTGACCACCT TCAGCTACGG CGTGCAGTGC      240
TTCAGCCGCT ACCCCGACCA CATGAAGCAG CACGACTTCT TCAAGTCCGC CATGCCCGAA      300
GGCTACGTCC AGGAGCGCAC CATCTTCTTC AAGGACGACG GCAACTACAA GACCCGCGCC      360
GAGGTGAAGT TCGAGGGCGA CACCCTGGTG AACCGCATCG AGCTGAAGGG CATCGACTTC      420
AAGGAGGACG GCAACATCCT GGGGCACAAG CTGGAGTACA ACTACAACAG CCACAACGTC      480
TATATCATGG CCGACAAGCA GAAGAACGGC ATCAAGGTGA ACTTCAAGAT CCGCCACAAC      540
ATCGAGGACG GCAGCGTGCA GCTCGCCGAC CACTACCAGC AGAACACCCC CATCGGCGAC      600
GGCCCCGTGC TGCTGCCCGA CAACCACTAC CTGAGCACCC AGTCCGCCCT GAGCAAAGAC      660
CCCAACGAGA AGCGCGATCA CATGGTCCTG CTGGAGTTCG TGACCGCCGC CGGGATCACT      720
CACGGCATGG ACGAGCTGTA CAAGTAAAGC GGCCGCGGAT CC                         762
```

        (2) INFORMATION FOR SEQ ID NO:41:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 4670 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: double
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: cDNA

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:41:

```
AAGCTTAAAC CATGCCCATG GGGTCTCTGC AACCGCTGGC CACCTTGTAC CTGCTGGGGA       60
TGCTGGTCGC TTCCGTGCTA GCCGCCACCA GAAGATACTA CCTGGGTGCA GTGGAACTGT      120
CATGGGACTA TATGCAAAGT GATCTCGGTG AGCTGCCTGT GGACGCAAGA TTTCCTCCTA      180
GAGTGCCAAA ATCTTTTCCA TTCAACACCT CAGTCGTGTA CAAAAAGACT CTGTTTGTAG      240
AATTCACGGA TCACCTTTTC AACATCGCTA AGCCAAGGCC ACCCTGGATG GGTCTGCTAG      300
GTCCTACCAT CCAGGCTGAG GTTTATGATA CAGTGGTCAT TACACTTAAG AACATGGCTT      360
CCCATCCTGT CAGTCTTCAT GCTGTTGGTG TATCCTACTG GAAAGCTTCT GAGGGAGCTG      420
AATATGATGA TCAGACCAGT CAAAGGGAGA AGAAGATGA TAAAGTCTTC CCTGGTGGAA       480
GCCATACATA TGTCTGGCAG GTCCTGAAAG AGAATGGTCC AATGGCCTCT GACCCACTGT      540
GCCTTACCTA CTCATATCTT TCTCATGTGG ACCTGGTAAA AGACTTGAAT TCAGGCCTCA      600
TTGGAGCCCT ACTAGTATGT AGAGAAGGGA GTCTGGCCAA GGAAAAGACA CAGACCTTGC      660
ACAAATTTAT ACTACTTTTT GCTGTATTTG ATGAAGGGAA AAGTTGGCAC TCAGAAACAA      720
AGAACTCCTT GATGCAGGAT AGGGATGCTG CATCTGCTCG GGCCTGGCCT AAAATGCACA      780
CAGTCAATGG TTATGTAAAC AGGTCTCTGC CAGGTCTGAT TGGATGCCAC AGGAAATCAG      840
TCTATTGGCA TGTGATTGGA ATGGGCACCA CTCCTGAAGT GCACTCAATA TTCCTCGAAG      900
GTCACACATT TCTTGTGAGG AACCATCGCC AGGCGTCCTT GGAAATCTCG CCAATAACTT      960
TCCTTACTGC TCAAACACTC TTGATGGACC TTGGACAGTT CTACTGTTTT TGTCATATCT     1020
CTTCCCACCA ACATGATGGC ATGGAAGCTT ATGTCAAAGT AGACAGCTGT CCAGAGGAAC     1080
CCCAACTACG AATGAAAAAT AATGAAGAAG CGGAAGACTA TGATGATGAT CTTACTGATT     1140
CTGAAATGGA TGTGGTCAGG TTTGATGATG ACAACTCTCC TTCCTTTATC CAAATTCGCT     1200
CAGTTGCCAA GAAGCATCCT AAAACTTGGG TACATTACAT TGCTGCTGAA GAGGAGGACT     1260
GGGACTATGC TCCCTTAGTC CTCGCCCCCG ATGACAGAAG TTATAAAAGT CAATATTTGA     1320
ACAATGGCCC TCAGCGGATT GGTAGGAAGT ACAAAAAAGT CCGATTTATG GCATACACAG     1380
ATGAAACCTT TAAGACTCGT GAAGCTATTC AGCATGAATC AGGAATCTTG GGACCTTTAC     1440
TTTATGGGGA AGTTGGAGAC ACACTGTTGA TTATATTTAA GAATCAAGCA AGCAGACCAT     1500
ATAACATCTA CCCTCACGGA ATCACTGATG TCCGTCCTTT GTATTCAAGG AGATTACCAA     1560
AAGGTGTAAA ACATTTGAAG GATTTTCCAA TTCTGCCAGG AGAAATATTC AAATATAAAT     1620
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```
GGACAGTGAC TGTAGAAGAT GGGCCAACTA AATCAGATCC TCGGTGCCTG ACCCGCTATT   1680
ACTCTAGTTT CGTTAATATG GAGAGAGATC TAGCTTCAGG ACTCATTGGC CCTCTCCTCA   1740
TCTGCTACAA AGAATCTGTA GATCAAAGAG GAAACCAGAT AATGTCAGAC AAGAGGAATG   1800
TCATCCTGTT TTCTGTATTT GATGAGAACC GAAGCTGGTA CCTCACAGAG AATATACAAC   1860
GCTTTCTCCC CAATCCAGCT GGAGTGCAGC TTGAGGATCC AGAGTTCCAA GCCTCCAACA   1920
TCATGCACAG CATCAATGGC TATGTTTTTG ATAGTTTGCA GTTGTCAGTT TGTTTGCATG   1980
AGGTGGCATA CTGGTACATT CTAAGCATTG GAGCACAGAC TGACTTCCTT TCTGTCTTCT   2040
TCTCTGGATA TACCTTCAAA CACAAAATGG TCTATGAAGA CACACTCACC CTATTCCCAT   2100
TCTCAGGAGA AACTGTCTTC ATGTCGATGG AAAACCCAGG TCTATGGATT CTGGGGTGCC   2160
ACAACTCAGA CTTTCGGAAC AGAGGCATGA CCGCCTTACT GAAGGTTTCT AGTTGTGACA   2220
AGAACACTGG TGATTATTAC GAGGACAGTT ATGAAGATAT TTCAGCATAC TTGCTGAGTA   2280
AAAACAATGC CATTGAACCA AGAAGCTTCT CCCAGAATTC AAGACACCCT AGCACTAGGC   2340
AAAAGCAATT TAATGCCACC CCACCAGTCT TGAAACGCCA TCAACGGGAA ATAACTCGTA   2400
CTACTCTTCA GTCAGATCAA GAGGAAATTG ACTATGATGA TACCATATCA GTTGAAATGA   2460
AGAAGGAAGA TTTTGACATT TATGATGAGG ATGAAAATCA GAGCCCCCGC AGCTTTCAAA   2520
AGAAAACACG ACACTATTTT ATTGCTGCAG TGGAGAGGCT CTGGGATTAT GGGATGAGTA   2580
GCTCCCCACA TGTTCTAAGA AACAGGGCTC AGAGTGGCAG TGTCCCTCAG TTCAAGAAAG   2640
TTGTTTTCCA GGAATTTACT GATGGCTCCT TTACTCAGCC CTTATACCGT GGAGAACTAA   2700
ATGAACATTT GGGACTCCTG GGGCCATATA TAAGAGCAGA AGTTGAAGAT AATATCATGG   2760
TAACTTTCAG AAATCAGGCC TCTCGTCCCT ATTCCTTCTA TTCTAGCCTT ATTTCTTATG   2820
AGGAAGATCA GAGGCAAGGA GCAGAACCTA GAAAAAACTT TGTCAAGCCT AATGAAACCA   2880
AAACTTACTT TTGGAAAGTG CAACATCATA TGGCACCCAC TAAAGATGAG TTTGACTGCA   2940
AAGCCTGGGC TTATTTCTCT GATGTTGACC TGGAAAAAGA TGTGCACTCA GGCCTGATTG   3000
GACCCCTTCT GGTCTGCCAC ACTAACACAC TGAACCCTGC TCATGGGAGA CAAGTGACAG   3060
TACAGGAATT TGCTCTGTTT TTCACCATCT TTGATGAGAC CAAAAGCTGG TACTTCACTG   3120
AAAATATGGA AAGAAACTGC AGGGCTCCCT GCAATATCCA GATGGAAGAT CCCACTTTTA   3180
AAGAGAATTA TCGCTTCCAT GCAATCAATG GCTACATAAT GGATACACTA CCTGGCTTAG   3240
TAATGGCTCA GGATCAAAGG ATTCGATGGT ATCTGCTCAG CATGGGCAGC AATGAAAACA   3300
TCCATTCTAT TCATTTCAGT GGACATGTGT TCACTGTACG AAAAAAAGAG GAGTATAAAA   3360
TGGCACTGTA CAATCTCTAT CCAGGTGTTT TTGAGACAGT GGAAATGTTA CCATCCAAAG   3420
CTGGAATTTG GCGGGTGGAA TGCCTTATTG GCGAGCATCT ACATGCTGGG ATGAGCACAC   3480
TTTTTCTGGT GTACAGCAAT AAGTGTCAGA CTCCCCTGGG AATGGCTTCT GGACACATTA   3540
GAGATTTTCA GATTACAGCT TCAGGACAAT ATGGACAGTG GGCCCCAAAG CTGGCCAGAC   3600
TTCATTATTC CGGATCAATC AATGCCTGGA GCACCAAGGA GCCCTTTTCT TGGATCAAGG   3660
TGGATCTGTT GGCACCAATG ATTATTCACG GCATCAAGAC CCAGGGTGCC CGTCAGAAGT   3720
TCTCCAGCCT CTACATCTCT CAGTTTATCA TCATGTATAG TCTTGATGGG AAGAAGTGGC   3780
AGACTTATCG AGGAAATTCC ACTGGAACCT TAATGGTCTT CTTTGGCAAT GTGGATTCAT   3840
CTGGGATAAA ACACAATATT TTTAACCCTC CAATTATTGC TCGATACATC CGTTTGCACC   3900
CAACTCATTA TAGCATTCGC AGCACTCTTC GCATGGAGTT GATGGGCTGT GATTTAAATA   3960
GTTGCAGCAT GCCATTGGGA ATGGAGAGTA AAGCAATATC AGATGCACAG ATTACTGCTT   4020
CATCCTACTT TACCAATATG TTTGCCACCT GGTCTCCTTC AAAAGCTCGA CTTCACCTCC   4080
AAGGGAGGAG TAATGCCTGG AGACCTCAGG TGAATAATCC AAAAGAGTGG CTGCAAGTGG   4140
ACTTCCAGAA GACAATGAAA GTCACAGGAG TAACTACTCA GGGAGTAAAA TCTCTGCTTA   4200
CCAGCATGTA TGTGAAGGAG TTCCTCATCT CCAGCAGTCA AGATGGCCAT CAGTGGACTC   4260
TCTTTTTTCA GAATGGCAAA GTAAAGGTTT TTCAGGGAAA TCAAGACTCC TTCACACCTG   4320
TGGTGAACTC TCTAGACCCA CCGTTACTGA CTCGCTACCT TCGAATTCAC CCCCAGAGTT   4380
GGGTGCACCA GATTGCCCTG AGGATGGAGG TTCTGGGCTG CGAGGCACAG GACCTCTACT   4440
GAGGGTGGCC ACTGCAGCAC CTGCCACTGC CGTCACCTCT CCCTCCTCAG CTCCAGGGCA   4500
GTGTCCCTCC CTGGCTTGCC TTCTACCTTT GTGCTAAATC CTAGCAGACA CTGCCTTGAA   4560
GCCTCCTGAA TTAACTATCA TCAGTCCTGC ATTTCTTTGG TGGGGGGCCA GGAGGGTGCA   4620
TCCAATTTAA CTTAACTCTT ACCGTCGACC TGCAGGCCCA ACGCGGCCGC              4670
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(2) INFORMATION FOR SEQ ID NO:42:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 4451 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: double
       (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: cDNA

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:42:

```
AAGCTTAAAC CATGCCCATG GGGTCTCTGC AACCGCTGGC CACCTTGTAC CTGCTGGGGA    60
TGCTGGTCGC TTCCGTGCTA GCCGCCACCC GCCGCTACTA CCTGGGCGCC GTGGAGCTGT   120
CCTGGGACTA CATGCAGAGC GACCTGGGCG AGCTCCCCGT GGACGCCCGC TTCCCCCCCC   180
GCGTGCCCAA GAGCTTCCCC TTCAACACCA GCGTGGTGTA CAAGAAAACC CTGTTCGTGG   240
AGTTCACCGA CCACCTGTTC AACATTGCCA GCCGCGCCCC CCCTGGATG GGCCTGCTGG   300
GCCCCACCAT CCAGGCCGAG GTGTACGACA CCGTGGTGAT CACCCTGAAG AACATGGCCA   360
GCCACCCCGT CAGCCTGCAC GCCGTGGGCG TGAGCTACTG GAAGGCCAGC GAGGGCGCCG   420
AGTACGACGA CCAGACGTCC CAGCGCGAGA AGGAGGACGA CAAGGTGTTC CCGGGGGGGA   480
GCCACACCTA CGTGTGGCAG GTGCTTAAGG AGAACGGCCC TATGGCCAGC GACCCCCTGT   540
GCCTGACCTA CAGCTACCTG AGCCACGTGG ACCTGGTGAA GGATCTGAAC AGCGGGCTGA   600
TCGGCGCCCT GCTGGTGTGT CGCGAGGGCA GCCTGGCCAA GGAGAAACC CAGACCCTGC   660
ACAAGTTCAT CCTGCTGTTC GCCGTGTTCG ACGAGGGGAA GAGCTGGCAC AGCGAGACTA   720
AGAACAGCCT GATGCAGGAC CGCGACGCCG CCAGCGCCCG CGCCTGGCCC AAGATGCACA   780
CCGTTAACGG CTACGTGAAC CGCAGCCTGC CCGGCCTGAT CGGCTGCCAC CGCAAGAGCG   840
TGTACTGGCA CGTCATCGGC ATGGGCACCA CCCCTGAGGT GCACAGCATC TTCCTGGAGG   900
GCCACACCTT CCTGGTGCGC AACCACCGCC AGGCCAGCCT GGAGATCAGC CCCATCACCT   960
TCCTGACTGC CCAGACCCTG CTGATGGACC TAGGCCAGTT CCTGCTGTTC TGCCACATCA  1020
GCAGCCACCA GCACGACGGC ATGGAGGCTT ACGTGAAGGT GGACAGCTGC CCCGAGGAGC  1080
CCCAGCTGCG CATGAAGAAC AACGAGGAGG CCGAGGACTA CGACGACGAC CTGACCGACA  1140
GCGAGATGGA TGTCGTACGC TTCGACGACG ACAACAGCCC CAGCTTCATC CAGATCCGCA  1200
GCGTGGCCAA GAAGCACCCT AAGACCTGGG TGCACTACAT CGCCGCCGAG GAGGAGGACT  1260
GGGACTACGC CCCGCTAGTA CTGGCCCCCG ACGACCGCAG CTACAAGAGC CAGTACCTGA  1320
ACAACGGCCC CCAGCGCATC GGCCGCAAGT ACAAGAAGGT GCGCTTCATG GCCTACACCG  1380
ACGAGACTTT CAAGACCCGC GAGGCCATCC AGCACGAGTC CGGCATCCTC GGCCCCCTGC  1440
TGTACGGCGA GGTGGGCGAC ACCCTGCTGA TCATCTTCAA GAACCAGGCC AGCAGGCCCT  1500
ACAACATCTA CCCCCACGGC ATCACCGACG TGCGCCCCCT GTACAGCCGC CGCCTGCCCA  1560
AGGGCGTGAA GCACCTGAAG GACTTCCCCA TCCTGCCCGG CGAGATCTTC AAGTACAAGT  1620
GGACCGTGAC CGTGGAGGAC GGCCCCACCA AGAGCGACCC CCGCTGCCTG ACCCGCTACT  1680
ACAGCAGCTT CGTGAACATG GAGCGCGACC TGGCCTCCGG ACTGATCGGC CCCCTGCTGA  1740
TCTGCTACAA GGAGAGCGTG GACCAGCGCG GCAACCAGAT CATGAGCGAC AAGCGCAACG  1800
TGATCCTGTT CAGCGTGTTC GACGAGAACC GCAGCTGGTA TCTGACCGAG AACATCCAGC  1860
GCTTCCTGCC CAACCCCGCT GGCGTGCAGC TGGAAGATCC CGAGTTCCAG GCCAGCAACA  1920
TCATGCACAG CATCAACGGC TACGTGTTCG ACAGCCTGCA GCTGAGCGTG TGCCTGCATG  1980
AGGTGGCCTA CTGGTACATC CTGAGCATCG GCGCCCAGAC CGACTTCCTG AGCGTGTTCT  2040
TCTCCGGGTA TACCTTCAAG CACAAGATGG TGTACGAGGA CACCCTGACC CTGTTCCCCT  2100
TCTCCGGCGA GACTGTGTTC ATGTCTATGG AGAACCCCGG CCTGTGGATT CTGGGCTGCC  2160
ACAACAGCGA CTTCCGCAAC CGCGGCATGA CTGCCCTGCT GAAAGTCTCC AGCTGCGACA  2220
AGAACACCGG CGACTACTAC GAGGACAGCT ACGAGGACAT CTCCGCCTAC CTGCTGTCCA  2280
AGAACAACGC CATCGAGCCC CGCTCCTTCT CCCAAAACTC CCGCCACCCC AGCACGCGTC  2340
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AGAAGCAGTT CAACGCCACC CCCCCCGTGC TGAAGCGCCA CCAGCGCGAG ATCACCCGCA      2400
CCACCCTGCA AAGCGACCAG GAGGAGATCG ACTACGACGA CACCATCAGC GTGGAGATGA      2460
AGAAGGAGGA CTTCGACATC TACGACGAGG ACGAGAACCA GAGCCCCCGC TCCTTCCAAA      2520
AGAAAACCCG CCACTACTTC ATCGCCGCCG TGGAGCGCCT GTGGGACTAC GGCATGAGCA      2580
GCAGCCCCCA CGTCCTGCGC AACCGCGCCC AGAGCGGCAG CGTGCCCCAG TTCAAGAAGG      2640
TGGTGTTCCA GGAGTTCACC GACGGCAGCT TCACCCAGCC CCTGTACCGC GGCGAGCTGA      2700
ACGAGCACCT GGGCCTGCTC GGCCCCTACA TCCGCGCCGA GGTGGAGGAC AACATCATGG      2760
TGACCTTCCG CAACCAAGCC TCCCGGCCCT ACTCCTTCTA CTCCTCCCTG ATCAGCTACG      2820
AGGAGGACCA GCGCCAGGGC GCCGAGCCCC GCAAGAACTT CGTGAAGCCC AACGAGACTA      2880
AGACCTACTT CTGGAAGGTG CAGCACCACA TGGCCCCCAC CAAGGACGAG TTCGACTGCA      2940
AGGCCTGGGC CTACTTCAGC GACGTGGACC TGGAGAAGGA CGTGCACAGC GGCCTGATCG      3000
GCCCCCTGCT GGTGTGCCAC ACCAACACCC TGAACCCCCC CCACGGGAGG CAGGTGACTG      3060
TGCAGGAATT TGCCCTGTTC TTCACCATCT TCGACGAGAC TAAGAGCTGG TACTTCACCG      3120
AGAACATGGA GCGCAACTGC CGCGCCCCCT GCAACATCCA GATGGAAGAT CCCACCTTCA      3180
AGGAGAACTA CCGCTTCCAC GCCATCAACG GCTACATCAT GGACACCCTG CCCGGCCTGG      3240
TGATGGCCCA GGACCAGCGC ATCCGCTGGT ACCTGCTGTC TATGGGCAGC AACGAGAACA      3300
TCCACAGCAT CCACTTCAGC GGCCACGTTT TCACCGTGCG CAAGAAGGAG GAGTACAAGA      3360
TGGCCCTGTA CAACCTGTAC CCCGGCGTGT TCGAGACTGT GGAGATGCTG CCCAGCAAGG      3420
CCGGGATCTG GCGCGTGGAG TGCCTGATCG GCGAGCACCT GCACGCCGGC ATGAGCACCC      3480
TGTTCCTGGT GTACAGCAAC AAGTGCCAGA CCCCCCTGGG CATGGCCAGC GGCCACATCC      3540
GCGACTTCCA GATCACCGCC AGCGGCCAGT ACGGCCAGTG GGCTCCCAAG CTGGCCCGCC      3600
TGCACTACAG CGGCAGCATC AACGCCTGGT CGACCAAGGA GCCCTTCTCC TGGATCAAGG      3660
TGGACCTGCT GGCCCCCATG ATCATCCACG GCATCAAGAC CCAGGGCGCC CGCCAGAAGT      3720
TCAGCAGCCT GTACATCAGC CAGTTCATCA TCATGTACTC TCTAGACGGC AAGAAGTGGC      3780
AGACCTACCG CGGCAACAGC ACCGGCACCC TGATGGTGTT CTTCGGCAAC GTGGACAGCA      3840
GCGGCATCAA GCACAACATC TTCAACCCCC CCATCATCGC CCGCTACATC CGCCTGCACC      3900
CCACCCACTA CAGCATCCGC AGCACCCTGC GCATGGAGCT GATGGGCTGC GACCTGAACA      3960
GCTGCAGCAT GCCCCTGGGC ATGGAGAGCA AGGCCATCAG CGACGCCCAG ATCACCGCCT      4020
CCAGCTACTT CACCAACATG TTCGCCACCT GGAGCCCCAG CAAGGCCCGC CTGCACCTGC      4080
AGGGCCGCAG CAACGCCTGG CGCCCCCAGG TGAACAACCC CAAGGAGTGG CTGCAGGTGG      4140
ACTTCCAGAA AACCATGAAG GTGACTGGCG TGACCACCCA GGGCGTCAAG AGCCTGCTGA      4200
CCAGCATGTA CGTGAAGGAG TTCCTGATCA GCAGCAGCCA GGACGGCCAC CAGTGGACCC      4260
TGTTCTTCCA AAACGGCAAG GTGAAGGTGT TCCAGGGCAA CCAGGACAGC TTCACACCGG      4320
TCGTGAACAG CCTGGACCCC CCCCTGCTGA CCCGCTACCT GCGCATCCAC CCCCAGAGCT      4380
GGGTGCACCA GATCGCCCTG CGCATGGAGG TGCTGGGCTG CGAGGCCCAG GACCTGTACT      4440
GAAGCGGCCG C                                                          4451
```

          (2) INFORMATION FOR SEQ ID NO:43:

          (i) SEQUENCE CHARACTERISTICS:
             (A) LENGTH: 18 base pairs
             (B) TYPE: nucleic acid
             (C) STRANDEDNESS: single
             (D) TOPOLOGY: linear

          (ii) MOLECULE TYPE: Other

          (xi) SEQUENCE DESCRIPTION: SEQ ID NO:43:

GGGGATCCTC ACGTCTCA   18

(2) INFORMATION FOR SEQ ID NO:44:

(i) SEQUENCE CHARACTERISTICS:
  (A) LENGTH: 33 base pairs
  (B) TYPE: nucleic acid
  (C) STRANDEDNESS: single
  (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:44:

CTGCTTCTGA CGCGTGCTGG GGTGGCGGGA GTT   33

(2) INFORMATION FOR SEQ ID NO:45:

(i) SEQUENCE CHARACTERISTICS:
  (A) LENGTH: 21 base pairs
  (B) TYPE: nucleic acid
  (C) STRANDEDNESS: single
  (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:45:

CTGCTGAAAG TCTCCAGCTG C   21

(2) INFORMATION FOR SEQ ID NO:46:

(i) SEQUENCE CHARACTERISTICS:
  (A) LENGTH: 33 base pairs
  (B) TYPE: nucleic acid
  (C) STRANDEDNESS: single
  (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:46:

GGCAGGTGCT TAAGGAGAAC GGCCCTATGG CCA   33

(2) INFORMATION FOR SEQ ID NO:47:

(i) SEQUENCE CHARACTERISTICS:
  (A) LENGTH: 39 base pairs
  (B) TYPE: nucleic acid
  (C) STRANDEDNESS: single
  (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:47:

CGCCAAGGGC TAGCCGCCAC CAGAAGATAC TACCTGGGT   39

        (2) INFORMATION FOR SEQ ID NO:48:

    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 31 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:48:

CAAGACTGGT GGGGTGGCAT TAAATTGCTT T   31

        (2) INFORMATION FOR SEQ ID NO:49:

    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 29 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:49:

AATGCCACCC CACCAGTCTT GAAACGCCA   29

        (2) INFORMATION FOR SEQ ID NO:50:

    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 20 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:50:

CATCTGGATA TTGCAGGGAG   20

        (2) INFORMATION FOR SEQ ID NO:51:

    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 105 base pairs
      (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:51:

CGCGAATTCG GAAGACCCGC TAGCCGCCAC CCGCCGCTAC TACCTGGGCG CCGTGGAGCT   60
GTCCTGGGAC TACATGCAGA GCGACCTGGG CGAGCTCCCC GTGGA   105

        (2) INFORMATION FOR SEQ ID NO:52:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 104 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:52:

GGGGATCCTC ACGTCTCAGG TTTTCTTGTA CACCACGCTG GTGTTGAAGG GGAAGCTCTT   60
GGGCACGCGG GGGGGGAAGC GGGCGTCCAC GGGGAGCTCG CCCA   104

        (2) INFORMATION FOR SEQ ID NO:53:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 105 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:53:

CGCGAATTCG GAAGACCCAA CCCTGTTCGT GGAGTTCACC GACCACCTGT TCAACATTGC   60
CAAGCCGCGC CCCCCCTGGA TGGGCCTGCT GGGCCCCACC ATCCA   105

        (2) INFORMATION FOR SEQ ID NO:54:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 104 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:54:

GGGGATCCTC ACGTCTCAGT GCAGGCTGAC GGGGTGGCTG GCCATGTTCT TCAGGGTGAT   60
CACCACGGTG TCGTACACCT CGGCCTGGAT GGTGGGGCCC AGCA   104

          (2) INFORMATION FOR SEQ ID NO:55:

      (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 105 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: Other

      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:55:

CGCGAATTCG GAAGACCCGC ACGCCGTGGG CGTGAGCTAC TGGAAGGCCA GCGAGGGCGC   60
CGAGTACGAC GACCAGACGT CCCAGCGCGA GAAGGAGGAC GACAA   105

          (2) INFORMATION FOR SEQ ID NO:56:

      (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 104 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: Other

      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:56:

GGGGATCCTC ACGTCTCAGC TGGCCATAGG GCCGTTCTCC TTAAGCACCT GCCACACGTA   60
GGTGTGGCTC CCCCCGGGA ACACCTTGTC GTCCTCCTTC TCGC   104

          (2) INFORMATION FOR SEQ ID NO:57:

      (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 105 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: Other

      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:57:

CGCGAATTCG GAAGACCCCA GCGACCCCCT GTGCCTGACC TACAGCTACC TGAGCCACGT   60
GGACCTGGTG AAGGATCTGA ACAGCGGGCT GATCGGCGCC CTGCT   105

          (2) INFORMATION FOR SEQ ID NO:58:

      (i) SEQUENCE CHARACTERISTICS:

90

(A) LENGTH: 104 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:58:

GGGGATCCTC ACGTCTCAGA ACAGCAGGAT GAACTTGTGC AGGGTCTGGG TTTTCTCCTT   60
GGCCAGGCTG CCCTCGCGAC ACACCAGCAG GGCGCCGATC AGCC   104

        (2) INFORMATION FOR SEQ ID NO:59:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 105 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:59:

CGCGAATTCG GAAGACCCGT TCGCCGTGTT CGACGAGGGG AAGAGCTGGC ACAGCGAGAC   60
TAAGAACAGC CTGATGCAGG ACCGCGACGC CGCCAGCGCC CGCGC   105

        (2) INFORMATION FOR SEQ ID NO:60:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 104 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:60:

GGGGATCCTC ACGTCTCAGT GGCAGCCGAT CAGGCCGGGC AGGCTGCGGT TCACGTAGCC   60
GTTAACGGTG TGCATCTTGG GCCAGGCGCG GGCGCTGGCG GCGT   104

        (2) INFORMATION FOR SEQ ID NO:61:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 105 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:61:

CGCGAATTCG GAAGACCCCC ACCGCAAGAG CGTGTACTGG CACGTCATCG GCATGGGCAC   60
CACCCCTGAG GTGCACAGCA TCTTCCTGGA GGGCCACACC TTCCT   105

        (2) INFORMATION FOR SEQ ID NO:62:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 104 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:62:

GGGGATCCTC ACGTCTCACA GGGTCTGGGC AGTCAGGAAG GTGATGGGGC TGATCTCCAG   60
GCTGGCCTGG CGGTGGTTGC GCACCAGGAA GGTGTGGCCC TCCA   104

        (2) INFORMATION FOR SEQ ID NO:63:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 105 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:63:

CGCGAATTCG GAAGACCCCC TGCTGATGGA CCTAGGCCAG TTCCTGCTGT TCTGCCACAT   60
CAGCAGCCAC CAGCACGACG GCATGGAGGC TTACGTGAAG GTGGA   105

        (2) INFORMATION FOR SEQ ID NO:64:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 104 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:64:

GGGGATCCTC ACGTCTCAGT CGTCGTCGTA GTCCTCGGCC TCCTCGTTGT TCTTCATGCG   60
CAGCTGGGGC TCCTCGGGGC AGCTGTCCAC CTTCACGTAA GCCT   104

        (2) INFORMATION FOR SEQ ID NO:65:

(i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 105 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:65:

```
CGCGAATTCG GAAGACCCCG ACCTGACCGA CAGCGAGATG GATGTCGTAC GCTTCGACGA      60
CGACAACAGC CCCAGCTTCA TCCAGATCCG CAGCGTGGCC AAGAA                     105
```

      (2) INFORMATION FOR SEQ ID NO:66:

(i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 104 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:66:

```
GGGGATCCTC ACGTCTCATA CTAGCGGGGC GTAGTCCCAG TCCTCCTCCT CGGCGGCGAT      60
GTAGTGCACC CAGGTCTTAG GGTGCTTCTT GGCCACGCTG CGGA                     104
```

      (2) INFORMATION FOR SEQ ID NO:67:

(i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 105 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:67:

```
CGCGAATTCG GAAGACCCAG TACTGGCCCC CGACGACCGC AGCTACAAGA GCCAGTACCT      60
GAACAACGGC CCCCAGCGCA TCGGCCGCAA GTACAAGAAG GTGCG                     105
```

      (2) INFORMATION FOR SEQ ID NO:68:

(i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 104 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear

93

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:68:

```
GGGGATCCTC ACGTCTCAGA GGATGCCGGA CTCGTGCTGG ATGGCCTCGC GGGTCTTGAA      60
AGTCTCGTCG GTGTAGGCCA TGAAGCGCAC CTTCTTGTAC TTGC                        104
```

        (2) INFORMATION FOR SEQ ID NO:69:

    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 105 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:69:

```
CGCGAATTCG GAAGACCCCC TCGGCCCCCT GCTGTACGGC GAGGTGGGCG ACACCCTGCT      60
GATCATCTTC AAGAACCAGG CCAGCAGGCC CTACAACATC TACCC                      105
```

        (2) INFORMATION FOR SEQ ID NO:70:

    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 104 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:70:

```
GGGGATCCTC ACGTCTCACT TCAGGTGCTT CACGCCCTTG GGCAGGCGGC GGCTGTACAG      60
GGGGCGCACG TCGGTGATGC CGTGGGGGTA GATGTTGTAG GGCC                        104
```

        (2) INFORMATION FOR SEQ ID NO:71:

    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 105 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:71:

```
CGCGAATTCG GAAGACCCGA AGGACTTCCC CATCCTGCCC GGCGAGATCT TCAAGTACAA      60
GTGGACCGTG ACCGTGGAGG ACGGCCCCAC CAAGAGCGAC CCCCG                      105
```

94

(2) INFORMATION FOR SEQ ID NO:72:

(i) SEQUENCE CHARACTERISTICS:
  (A) LENGTH: 104 base pairs
  (B) TYPE: nucleic acid
  (C) STRANDEDNESS: single
  (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:72:

```
GGGGATCCTC ACGTCTCAGC CGATCAGTCC GGAGGCCAGG TCGCGCTCCA TGTTCACGAA      60
GCTGCTGTAG TAGCGGGTCA GGCAGCGGGG GTCGCTCTTG GTGG                      104
```

(2) INFORMATION FOR SEQ ID NO:73:

(i) SEQUENCE CHARACTERISTICS:
  (A) LENGTH: 105 base pairs
  (B) TYPE: nucleic acid
  (C) STRANDEDNESS: single
  (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:73:

```
CGCGAATTCG GAAGACCCCG GCCCCCTGCT GATCTGCTAC AAGGAGAGCG TGGACCAGCG      60
CGGCAACCAG ATCATGAGCG ACAAGCGCAA CGTGATCCTG TTCAG                     105
```

(2) INFORMATION FOR SEQ ID NO:74:

(i) SEQUENCE CHARACTERISTICS:
  (A) LENGTH: 104 base pairs
  (B) TYPE: nucleic acid
  (C) STRANDEDNESS: single
  (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:74:

```
GGGGATCCTC ACGTCTCAAG CGGGGGTTGGG CAGGAAGCGC TGGATGTTCT CGGTCAGATA     60
CCAGCTGCGG TTCTCGTCGA ACACGCTGAA CAGGATCACG TTGC                      104
```

(2) INFORMATION FOR SEQ ID NO:75:

(i) SEQUENCE CHARACTERISTICS:
  (A) LENGTH: 105 base pairs
  (B) TYPE: nucleic acid
  (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:75:

CGCGAATTCG GAAGACCCCG CTGGCGTGCA GCTGGAAGAT CCCGAGTTCC AGGCCAGCAA   60
CATCATGCAC AGCATCAACG GCTACGTGTT CGACAGCCTG CAGCT   105

        (2) INFORMATION FOR SEQ ID NO:76:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 104 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:76:

GGGGATCCTC ACGTCTCACA GGAAGTCGGT CTGGGCGCCG ATGCTCAGGA TGTACCAGTA   60
GGCCACCTCA TGCAGGCACA CGCTCAGCTG CAGGCTGTCG AACA   104

        (2) INFORMATION FOR SEQ ID NO:77:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 105 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:77:

CGCGAATTCG GAAGACCCCC TGAGCGTGTT CTTCTCCGGG TATACCTTCA AGCACAAGAT   60
GGTGTACGAG GACACCCTGA CCCTGTTCCC CTTCTCCGGC GAGAC   105

        (2) INFORMATION FOR SEQ ID NO:78:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 104 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:78:

GGGGATCCTC ACGTCTCAGT TGCGGAAGTC GCTGTTGTGG CAGCCCAGAA TCCACAGGCC   60
GGGGTTCTCC ATAGACATGA ACACAGTCTC GCCGGAGAAG GGGA   104

        (2) INFORMATION FOR SEQ ID NO:79:

    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 105 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:79:

CGCGAATTCG GAAGACCCCA ACCGCGGCAT GACTGCCCTG CTGAAAGTCT CCAGCTGCGA   60
CAAGAACACC GGCGACTACT ACGAGGACAG CTACGAGGAC ATCTC   105

        (2) INFORMATION FOR SEQ ID NO:80:

    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 104 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:80:

GGGGATCCTC ACGTCTCAGC GGTGGCGGGA GTTTTGGGAG AAGGAGCGGG GCTCGATGGC   60
GTTGTTCTTG GACAGCAGGT AGGCGGAGAT GTCCTCGTAG CTGT   104

        (2) INFORMATION FOR SEQ ID NO:81:

    (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 105 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: Other

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:81:

CGCGAATTCG GAAGACCCCC GCAGCACGCG TCAGAAGCAG TTCAACGCCA CCCCCCCCGT   60
GCTGAAGCGC CACCAGCGCG AGATCACCCG CACCACCCTG CAAAG   105

        (2) INFORMATION FOR SEQ ID NO:82:

    (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 104 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:82:

GGGGATCCTC ACGTCTCAGA TGTCGAAGTC CTCCTTCTTC ATCTCCACGC TGATGGTGTC   60
GTCGTAGTCG ATCTCCTCCT GGTCGCTTTG CAGGGTGGTG CGGG   104

          (2) INFORMATION FOR SEQ ID NO:83:

     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 105 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:83:

CGCGAATTCG GAAGACCCCA TCTACGACGA GGACGAGAAC CAGAGCCCCC GCTCCTTCCA   60
AAAGAAAACC CGCCACTACT TCATCGCCGC CGTGGAGCGC CTGTG   105

          (2) INFORMATION FOR SEQ ID NO:84:

     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 104 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:84:

GGGGATCCTC ACGTCTCACT GGGGCACGCT GCCGCTCTGG GCGCGGTTGC GCAGGACGTG   60
GGGGCTGCTG CTCATGCCGT AGTCCCACAG GCGCTCCACG GCGG   104

          (2) INFORMATION FOR SEQ ID NO:85:

     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 105 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:85:

CGCGAATTCG GAAGACCCCC AGTTCAAGAA GGTGGTGTTC CAGGAGTTCA CCGACGGCAG   60
CTTCACCCAG CCCCTGTACC GCGGCGAGCT GAACGAGCAC CTGGG   105

        (2) INFORMATION FOR SEQ ID NO:86:

        (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 104 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:86:

GGGGATCCTC ACGTCTCAGG CTTGGTTGCG GAAGGTCACC ATGATGTTGT CCTCCACCTC   60
GGCGCGGATG TAGGGGCCGA GCAGGCCCAG GTGCTCGTTC AGCT   104

        (2) INFORMATION FOR SEQ ID NO:87:

        (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 105 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:87:

CGCGAATTCG GAAGACCCAG CCTCCCGGCC CTACTCCTTC TACTCCTCCC TGATCAGCTA   60
CGAGGAGGAC CAGCGCCAGG GCGCCGAGCC CCGCAAGAAC TTCGT   105

        (2) INFORMATION FOR SEQ ID NO:88:

        (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 104 base pairs
          (B) TYPE: nucleic acid
          (C) STRANDEDNESS: single
          (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:88:

GGGGATCCTC ACGTCTCACT CGTCCTTGGT GGGGGCCATG TGGTGCTGCA CCTTCCAGAA   60
GTAGGTCTTA GTCTCGTTGG GCTTCACGAA GTTCTTGCGG GGCT   104

        (2) INFORMATION FOR SEQ ID NO:89:

99

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 105 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:89:

```
CGCGAATTCG GAAGACCCCG AGTTCGACTG CAAGGCCTGG GCCTACTTCA GCGACGTGGA      60
CCTGGAGAAG GACGTGCACA GCGGCCTGAT CGGCCCCCTG CTGGT                     105
```

       (2) INFORMATION FOR SEQ ID NO:90:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 104 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:90:

```
GGGGATCCTC ACGTCTCAGA ACAGGGCAAA TTCCTGCACA GTCACCTGCC TCCCGTGGGG      60
GGGGTTCAGG GTGTTGGTGT GGCACACCAG CAGGGGGCCG ATCA                      104
```

       (2) INFORMATION FOR SEQ ID NO:91:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 105 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:91:

```
CGCGAATTCG GAAGACCCGT TCTTCACCAT CTTCGACGAG ACTAAGAGCT GGTACTTCAC      60
CGAGAACATG GAGCGCAACT GCCGCGCCCC CTGCAACATC CAGAT                     105
```

       (2) INFORMATION FOR SEQ ID NO:92:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 104 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

100

(ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:92:

GGGGATCCTC ACGTCTCACA GGGTGTCCAT GATGTAGCCG TTGATGGCGT GGAAGCGGTA   60
GTTCTCCTTG AAGGTGGGAT CTTCCATCTG GATGTTGCAG GGGG   104

        (2) INFORMATION FOR SEQ ID NO:93:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 105 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:93:

CGCGAATTCG GAAGACCCCC TGCCCGGCCT GGTGATGGCC CAGGACCAGC GCATCCGCTG   60
GTACCTGCTG TCTATGGGCA GCAACGAGAA CATCCACAGC ATCCA   105

        (2) INFORMATION FOR SEQ ID NO:94:

        (i) SEQUENCE CHARACTERISTICS: .
            (A) LENGTH: 104 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:94:

GGGGATCCTC ACGTCTCAGT ACAGGTTGTA CAGGGCCATC TTGTACTCCT CCTTCTTGCG   60
CACGGTGAAA ACGTGGCCGC TGAAGTGGAT GCTGTGGATG TTCT   104

        (2) INFORMATION FOR SEQ ID NO:95:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 106 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:95:

CGCGAATTCG GAAGACCCGT ACCCCGGCGT RGTTCGAGAC TGTGGAGATG CTGCCCAGCA   60
AGGCCGGGAT CTGGCGCGTG GAGTGCCTGA TCGGCGAGCA CCTGCA   106

101

(2) INFORMATION FOR SEQ ID NO:96:

  (i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 104 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

  (ii) MOLECULE TYPE: Other

  (xi) SEQUENCE DESCRIPTION: SEQ ID NO:96:

```
GGGGATCCTC ACGTCTCAGC TGGCCATGCC CAGGGGGGTC TGGCACTTGT TGCTGTACAC      60
CAGGAACAGG GTGCTCATGC CGGCGTGCAG GTGCTCGCCG ATCA                       104
```

      (2) INFORMATION FOR SEQ ID NO:97:

  (i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 106 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

  (ii) MOLECULE TYPE: Other

  (xi) SEQUENCE DESCRIPTION: SEQ ID NO:97:

```
CGCGAATTCG GAAGACCCCA GCGGCCACAT RCCGCGACTT CCAGATCACC GCCAGCGGCC      60
AGTACGGCCA GTGGGCTCCC AAGCTGGCCC GCCTGCACTA CAGCGG                     106
```

      (2) INFORMATION FOR SEQ ID NO:98:

  (i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 104 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

  (ii) MOLECULE TYPE: Other

  (xi) SEQUENCE DESCRIPTION: SEQ ID NO:98:

```
GGGGATCCTC ACGTCTCACA TGGGGGCCAG CAGGTCCACC TTGATCCAGG AGAAGGGCTC      60
CTTGGTCGAC CAGGCGTTGA TGCTGCCGCT GTAGTGCAGG CGGG                       104
```

      (2) INFORMATION FOR SEQ ID NO:99:

  (i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 105 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single

102

(D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:99:

CGCGAATTCG GAAGACCCCA TGATCATCCA CGGCATCAAG ACCCAGGGCG CCCGCCAGAA   60
GTTCAGCAGC CTGTACATCA GCCAGTTCAT CATCATGTAC TCTCT   105

            (2) INFORMATION FOR SEQ ID NO:100:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 104 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:100:

GGGGATCCTC ACGTCTCAGT TGCCGAAGAA CACCATCAGG GTGCCGGTGC TGTTGCCGCG   60
GTAGGTCTGC CACTTCTTGC CGTCTAGAGA GTACATGATG ATGA   104

            (2) INFORMATION FOR SEQ ID NO:101:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 105 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:101:

CGCGAATTCG GAAGACCCCA ACGTGGACAG CAGCGGCATC AAGCACAACA TCTTCAACCC   60
CCCCATCATC GCCCGCTACA TCCGCCTGCA CCCCACCCAC TACAG   105

            (2) INFORMATION FOR SEQ ID NO:102:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 104 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: Other

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:102:

103

```
GGGGATCCTC ACGTCTCAGC CCAGGGGCAT GCTGCAGCTG TTCAGGTCGC AGCCCATCAG      60
CTCCATGCGC AGGGTGCTGC GGATGCTGTA GTGGGTGGGG TGCA                       104
```

       (2) INFORMATION FOR SEQ ID NO:103:

     (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 105 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:103:

```
CGCGAATTCG GAAGACCCGG GCATGGAGAG CAAGGCCATC AGCGACGCCC AGATCACCGC      60
CTCCAGCTAC TTCACCAACA TGTTCGCCAC CTGGAGCCCC AGCAA                      105
```

       (2) INFORMATION FOR SEQ ID NO:104:

     (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 104 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:104:

```
GGGGATCCTC ACGTCTCACC ACTCCTTGGG GTTGTTCACC TGGGGGCGCC AGGCGTTGCT      60
GCGGCCCTGC AGGTGCAGGC GGGCCTTGCT GGGGCTCCAG GTGG                       104
```

       (2) INFORMATION FOR SEQ ID NO:105:

     (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 105 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

     (ii) MOLECULE TYPE: Other

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:105:

```
CGCGAATTCG GAAGACCCGT GGCTGCAGGT GGACTTCCAG AAAACCATGA AGGTGACTGG      60
CGTGACCACC CAGGGCGTCA AGAGCCTGCT GACCAGCATG TACGT                      105
```

       (2) INFORMATION FOR SEQ ID NO:106:

     (i) SEQUENCE CHARACTERISTICS:

104

(A) LENGTH: 104 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: Other

      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:106:

GGGGATCCTC ACGTCTCACT TGCCGTTTTG GAAGAACAGG GTCCACTGGT GGCCGTCCTG   60
GCTGCTGCTG ATCAGGAACT CCTTCACGTA CATGCTGGTC AGCA   104

            (2) INFORMATION FOR SEQ ID NO:107:

      (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 105 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: Other

      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:107:

CGCGAATTCG GAAGACCCCA AGGTGAAGGT GTTCCAGGGC AACCAGGACA GCTTCACACC   60
GGTCGTGAAC AGCCTGGACC CCCCCCTGCT GACCCGCTAC CTGCG   105

            (2) INFORMATION FOR SEQ ID NO:108:

      (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 125 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

      (ii) MOLECULE TYPE: Other

      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:108:

GGGGATCCTC ACGTCTCAGC GGCCGCTTCA GTACAGGTCC TGGGCCTCGC AGCCCAGCAC   60
CTCCATGCGC AGGGCGATCT GGTGCACCCA GCTCTGGGGG TGGATGCGCA GGTAGCGGGT   120
CAGCA   125

            (2) INFORMATION FOR SEQ ID NO:109:

      (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 36 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

105

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:109:

CGTTGTTCTT CATACGCGTC TGGGGCTCCT CGGGGC   36

(2) INFORMATION FOR SEQ ID NO:110:

(i) SEQUENCE CHARACTERISTICS:
   (A) LENGTH: 18 base pairs
   (B) TYPE: nucleic acid
   (C) STRANDEDNESS: single
   (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:110:

CGCGAATTCG GAAGACCC   18

106